

CLAIMS

1. A method for control of an internal combustion engine (2) in order to regenerate exhaust-gas purifying means (14) disposed on an exhaust line (4) of the engine (2), characterized in that a composition of the exhaust gases is analyzed solely downstream from the purifying means (14) during a phase of regeneration of the purifying means, and a signal for control of the engine (2) is created on the basis of the said analysis in order to modify the composition of the exhaust gases upstream from the purifying means (14).

2. A method according to claim 1, characterized in that the composition of the exhaust gases is analyzed by means of an oxygen sensor (23) of the all-or-nothing type situated downstream from the purifying means (14).

3. A method according to claim 2, characterized in that the operating temperature of the sensor (23) is controlled.

4. A method according to any one of claims 2 or 3, characterized in that the output signal (S_M) of the sensor is compared with a reference value (C), and a control signal (S_C) is created to reduce the difference (E) between the output signal (S_M) of the sensor and the reference value (C).

5. A method according to any one of the preceding claims, characterized in that the end stage of a regeneration phase is detected on the basis of a control signal (S_C).

6. A control device for regeneration of exhaust-gas purifying means (14) disposed on an exhaust line (4) of an internal combustion engine (2), comprising a control module (26) capable of modifying the fuel injection and an oxygen sensor (23) disposed on the exhaust line directly downstream from the purifying means (14), characterized in that, during a phase of regeneration of the purifying means (14), the injection-control module is capable of causing a modification of the composition of the exhaust gases solely as a function of an output signal of the said

oxygen sensor (23).

7. A device according to claim 6, characterized in that the oxygen sensor (23) is of the all-or-nothing or proportional type.

8. A device according to any one of claims 6 or 7, characterized in that it comprises means for controlling the operating temperature of the sensor (23).

9. A device according to any one of claims 6 to 8, characterized in that it comprises a detection module (27) capable of detecting the end of a regeneration phase as a function of a control signal produced by the control module (26).

10. A device according to any one of claims 6 to 9, characterized in that the purifying means comprise a nitrogen oxides trap.